

Tahiti
Rarotonga

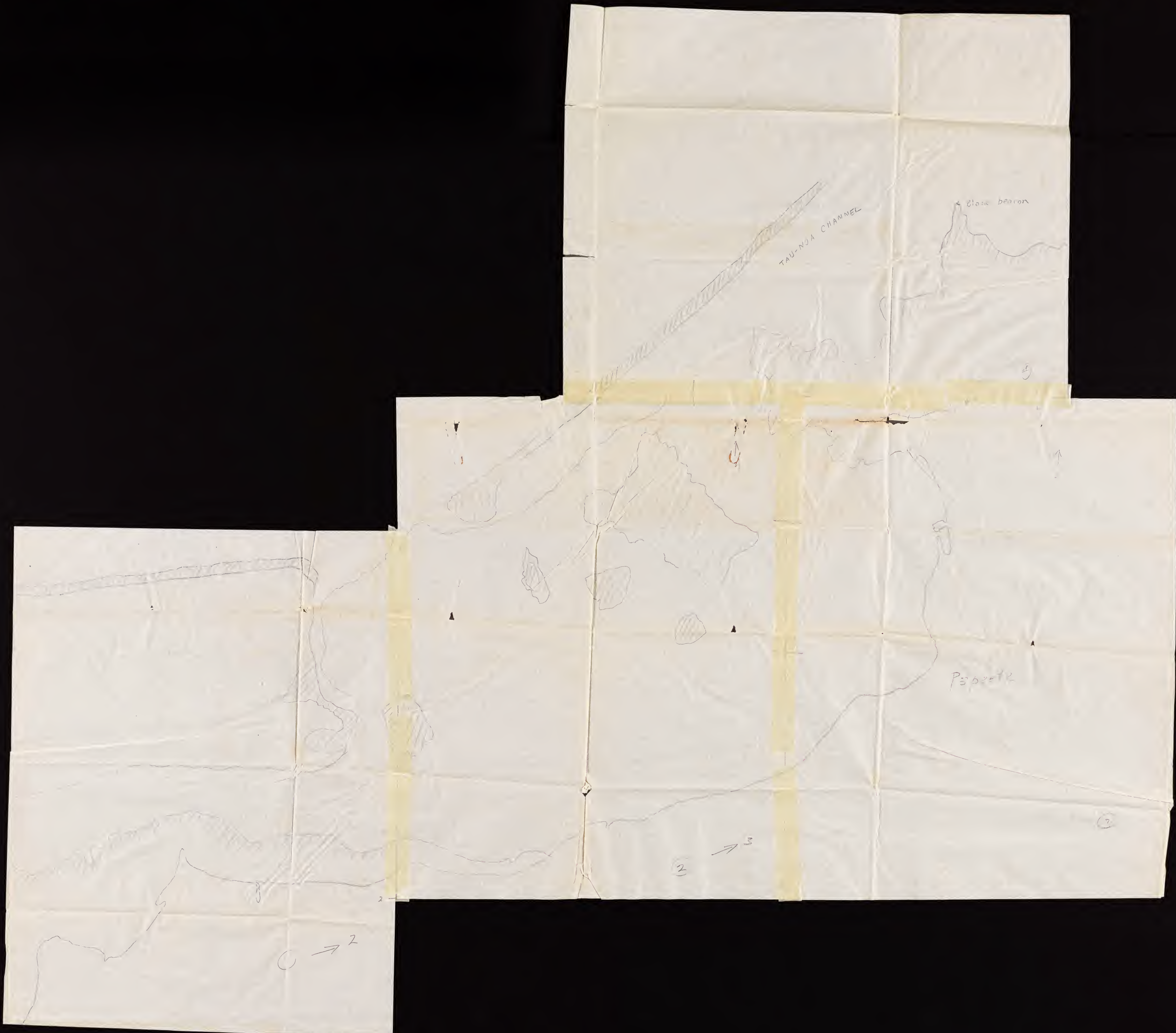
XII.

BERNICE P. BISHOP MUSEUM

HONOLULU, HAWAII

FIELD NOTE BOOK





TAU-NOA CHANNEL

Black beacon

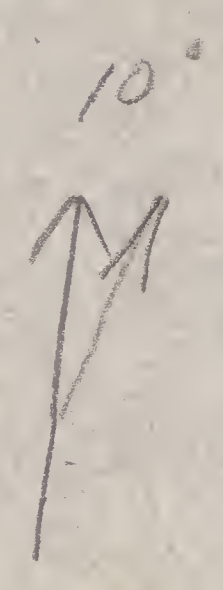
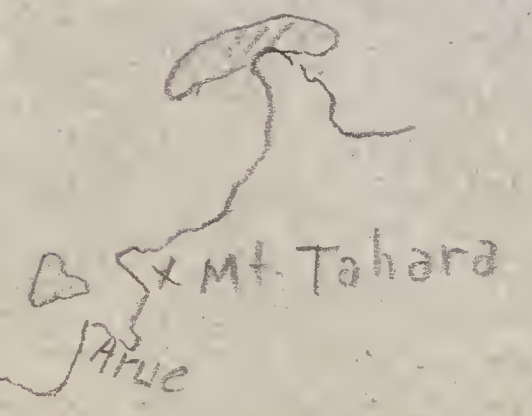
Papeete

2 →

2

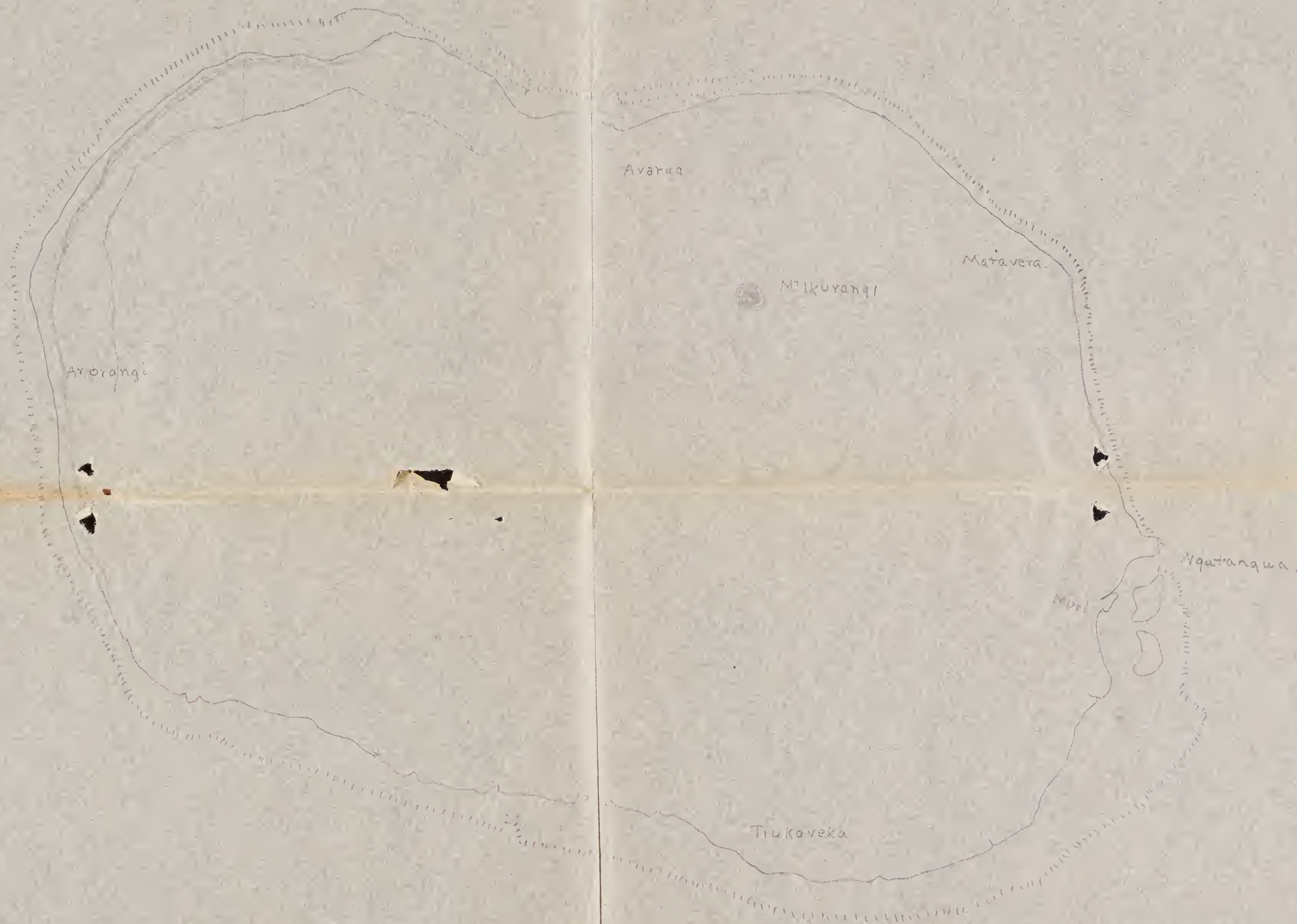
→ 3

2



x 1076

RAROTONGA
Scale 60,000



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Subject Geology

Locality Tahiti, Rarotonga

Member of Staff J. H. Ball

Date Jan 19 34

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Sat. Jan. 28 - Papeete, Tahiti

Hired native outrigger canoe for trip to barrier reef at entrance (NE) to harbor. Tide $2\frac{1}{2}$ hr. past ebb.

← E.H. has thin + other corals from fr. reef.
TAI.

Stopped on way out on fringing reef covered by a foot or more of water. Fringing reef very irregular in outline with vertical or overhanging edges. Cannot see bottom in many places at edge. Composed mainly of a species of *Pouter* ^(sample) at surface at least. Large massive rounded heads. Some branching *Acropora* but not much. A small species of *Fungia* locally abundant but apparently no great variety of corals. *Lithothamnium* + *Arca* in or attached to coral heads - *Cyprina* *moneta*, dead part = mottled not abundant as at Suva. Many *echinopora* sea calm but surges

high. Slipped water in attempting to land on barrier - had to turn back. Tried to approach at a point a little to NE. I swam to barrier but could not make a satisfactory examination due to strength of surf. Little living coral at point near middle

TA2

of barrier (see sample). At inner edge nodular algae - banded (sample)

TA3

March seaward on barrier - hardly the algae pavement I had visualized. Inner edge of barrier not steep as is the outer edge of the fringing reef - inner edge of barrier slopes gradually to lagoon - many pockets of white sand appearing.

Hired car & drove NE to Takana Head (Mt.) ^(just beyond lagoon) WSW. side of small bay. WSW Head a fringing

TA4

reef is well developed. The surface of the reef appears to be composed in large part of living algae. Could not reach actual edge of reef due to heavy surf but between surfer and reef one could see that corals were quite numerous near the edge. They are rather rare on other parts of the reef. Bottom of the pavement near the edge of the reef are mottled with large & small echinoids. A large purple-spined species very abundant (at least one to every square foot) & to landward of the area covered by them at least two species of smaller echinoids became abundant.

TA5

Note sample of dark conglomerate rock & cf. Tholozan-sima eg. Algae as binder in this rock & corals also are present. It sticks up above the general reef surface &

more of red 5 to 6 ft stuff
in strata

Returned to Bayate - on the other
side to Quas. The air was
suffocating & hot. Did not see
any potential freezing reef - no
could see find out any thing
about Quas.

I would help finding that one
reason for the flourishing condition
of the algae at Bayate is the low
tidal range (8.5 ft average) - with
such a low shift the algae can
come to reef & keep the algae
settled even at low tide.

Did not see distinct *Schizothamnion*
ridge at edge of reef at low.



Protospongia

R1

Climbed high local hill (310' ±)
to west of ship anchorage on north
shore, Bayate & 15' ± above reef
about 1/2 way up hill. ^{off shore of Bayate}
almost a mile wide just W of hill
I can see - almost 1/2 mile wide
by low tide, true wharf, but Bayate
partly green land & not covered green
space in modern freezing reef
at anchorage - to W - the reef

well uncovered at low tide. ^{measured}
All town E. of Bayate (Bayate)
- (1-2) mile E. of Bayate of Bayate coast
+ high ridge large rounded coral
heads all low. Bay to also lower
as Bayate station way to Bayate
with other side of Bay to Bayate
Have never seen accumulations
of green coral. Bayate Bayate
(if it is - Bayate). No in fact

Bayate Bayate Bayate Bayate

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12

13

(260)

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1934

Jan

Tahiti & Rarotonga

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 1st map
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